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AZ CORP COMMISSION  
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## BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL  
ChairmanJIM IRVIN  
CommissionerMARC SPITZER  
Commissioner

IN THE MATTER OF THE APPLICATION OF )  
 TUCSON ELECTRIC POWER COMPANY FOR )  
 APPROVAL OF NEW PARTIAL )  
 REQUIREMENTS SERVICE TARIFFS, )  
 MODIFICATION OF EXISTING PARTIAL )  
 REQUIREMENTS SERVICE TARIFF 101, AND )  
 ELIMINATION OF QUALIFYING FACILITY )  
 TARIFFS. )

DOCKET NO. E-01933A-02-0345

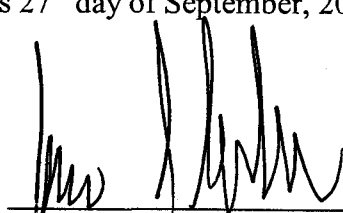
IN THE MATTER OF THE APPLICATION OF )  
 TUCSON ELECTRIC POWER COMPANY FOR )  
 APPROVAL OF ITS STRANDED COST )  
 RECOVERY. )

DOCKET NO. E-01933A-98-0471

STAFF'S NOTICE OF FILING  
TESTIMONY

Staff of the Arizona Corporation Commission hereby files the Direct Testimony of Barbara  
 Keene, of the Utilities Division, in the above-referenced matter.

RESPECTFULLY SUBMITTED this 27<sup>th</sup> day of September, 2002.

  
 Jason D. Gellman, Attorney  
 Legal Division  
 Arizona Corporation Commission  
 1200 West Washington Street  
 Phoenix, Arizona 85007  
 (602) 542-3402

The original and fifteen (15)  
 copies of the foregoing filed  
 this 27<sup>th</sup> day of September, 2002, with:

Docket Control  
 Arizona Corporation Commission  
 1200 West Washington Street  
 Phoenix, Arizona 85007

Arizona Corporation Commission  
DOCKETED

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1 COPIES of the foregoing were  
2 Hand-delivered or mailed this  
3 27<sup>th</sup> day of September 2002  
4 pursuant to the ACC Service list for  
5 E-01933A-02-0345 et al. And  
6 Electric Restructuring E-00000A-02-0051  
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Angela L. Bennett



**ARIZONA CORPORATION COMMISSION  
UTILITIES DIVISION**

**DIRECT  
TESTIMONY  
OF  
BARBARA E. KEENE**

**IN THE MATTER OF THE APPLICATION OF  
TUCSON ELECTRIC POWER COMPANY FOR  
APPROVAL OF NEW PARTIAL  
REQUIREMENTS SERVICE TARIFFS,  
MODIFICATION OF EXISTING PARTIAL  
REQUIREMENTS SERVICE TARIFF 101, AND  
ELIMINATION OF QUALIFYING FACILITY  
TARIFFS  
IN THE MATTER OF THE APPLICATION OF  
TUCSON ELECTRIC POWER COMPANY FOR  
APPROVAL OF ITS STRANDED COST  
RECOVERY**

**DOCKET NO. E-01933A-02-0345 AND E-01933A-98-0471**

**SEPTEMBER 27, 2002**

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

Commissioner

MARC SPITZER

Commissioner

IN THE MATTER OF THE APPLICATION OF )  
TUCSON ELECTRIC POWER COMPANY FOR )  
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TARIFFS )

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IN THE MATTER OF THE APPLICATION OF )  
TUCSON ELECTRIC POWER COMPANY FOR )  
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RECOVERY )

DOCKET NO. E-01933A-98-0471

DIRECT

TESTIMONY

OF

BARBARA KEENE

PUBLIC UTILITIES ANALYST

UTILITIES DIVISION

SEPTEMBER 27, 2002

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

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IN THE MATTER OF THE APPLICATION OF )  
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DIRECT

TESTIMONY

OF

BARBARA KEENE

PUBLIC UTILITIES ANALYST

UTILITIES DIVISION

SEPTEMBER 27, 2002

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**INTRODUCTION**

**Q. Please state your name and business address.**

A. My name is Barbara Keene. My business address is 1200 West Washington St., Phoenix, Arizona 85007.

**Q. By whom are you employed and in what capacity?**

A. I am employed by the Utilities Division of the Arizona Corporation Commission (Commission) as a Public Utilities Analyst. My duties include evaluation of electric utility special contracts, review of utility tariff filings, assessment of utility demand-side management programs, and analysis of electric utility production costs and marginal costs. A copy of my résumé is provided in Appendix 1.

**Q. As part of your employment responsibilities, were you assigned to review matters contained in Docket No. E-01933A-02-0345?**

A. Yes.

**Q. What is the purpose of your testimony?**

A. The purpose of my testimony is to present the Utilities Division Staff's ("Staff") response to Tucson Electric Power's ("TEP") proposals to eliminate, modify, or introduce tariffs. I will also present testimony regarding the proposed modification of TEP's Market Generation Credit.

**BACKGROUND-COMMISSION IMPLEMENTATION OF PURPA**

**Q. Please describe PURPA.**

A. The Public Utility Regulatory Policies Act (PURPA) was enacted on November 9, 1978, as one of five parts of the National Energy Act. Its purpose is to encourage cogeneration and small power production. The Federal Energy Regulatory Commission (FERC) was to promulgate rules to implement PURPA. FERC determined that a small power



1 production or cogeneration facility which meets its ownership and technical requirements  
2 is a Qualifying Facility (QF).

3  
4 **Q. Please further describe a QF.**

5 A. A QF is either (a) a small power production facility, no greater than 80 MW, that uses  
6 biomass, waste, or renewable resources as fuel; or (b) a cogeneration facility that  
7 produces both electric energy and steam or heat which is used for industrial, commercial,  
8 heating, or cooling purposes. In addition to other requirements, the facility must be  
9 owned by a person not primarily engaged in the generation or sale of electric power.  
10

11 **Q. What does PURPA require in regard to utilities buying excess energy from QFs?**

12 A. At times, a QF can produce more electricity than is needed by the operating facility.  
13 PURPA requires utilities to purchase this excess electric energy from QFs. PURPA also  
14 requires the rates for purchases by electric utilities to (a) be just and reasonable to the  
15 electric consumers of the electric utility and in the public interest, (b) not discriminate  
16 against qualifying cogenerators or qualifying small power producers, and (c) not exceed  
17 the incremental cost to the electric utility of alternative electric energy. The term  
18 "incremental cost of alternative electric energy" is defined as "with respect to electric  
19 energy purchased from a qualifying cogenerator or qualifying small power producer, the  
20 cost to the electric utility of the electric energy which, but for the purchase from such  
21 cogenerator or small power producer, such utility would generate or purchase from  
22 another source." This incremental cost is also known as "avoided cost."  
23

24 **Q. What does PURPA require in regard to utilities supplying power to QFs?**

25 A. PURPA requires utilities to sell power to QFs to supplement their electrical production  
26 and to supply power during scheduled and unscheduled outages at non-discriminatory  
27 rates that reflect the costs of supplying that power.  
28

...

1     **Q.     How did the Commission implement PURPA in Arizona?**

2     A.     Sections 201 and 210 of PURPA required state regulatory authorities to implement  
3           FERC's rules. The final FERC rules for the implementation of the cogeneration law  
4           contained in PURPA became effective on March 20, 1980. On July 27, 1981 (Decision  
5           No. 52345), after a hearing, the Commission adopted a Cogeneration and Small Power  
6           Production Policy ("Policy"). This policy is intended to encourage the development of  
7           cogeneration and small power production, reduce the consumption of non-renewable  
8           energy resources, reduce the administrative and bureaucratic barriers to the advancement  
9           of cogeneration and small power production, and promote equity, efficiency, and  
10          conservation in the production and sale of electricity in Arizona. The Policy is applicable  
11          to all electric corporations under Commission jurisdiction.

12  
13    **Q.     What does Arizona's Cogeneration and Small Power Production Policy address?**

14    A.     Among other provisions, the Policy addresses:

- 15          •     *Standard rates and contracts for QFs of 100 kW or less.* Each utility was required  
16               to file for Commission approval standard rates, based on the utility's avoided  
17               costs, for the purchase of power from QFs 100 kW and under.
- 18          •     *Rates and contracts for QFs over 100 kW.* All of these contracts must be  
19               submitted to the Commission for review and approval. No specific rate must be  
20               filed prior to the execution of the contract, but the rates would generally be based  
21               on the standard rates for QFs 100 kW and under.
- 22          •     *Rates for supplementary, standby, and maintenance power.* Each utility was  
23               required to file rates for supplying this power to QFs. In determining these rates,  
24               the utility was not to assume that the QF's requirements for these services would  
25               occur simultaneously with the utility's system peak.

26    ...

27    ...

28    ...

1     **Q.     Have any changes been made to the Policy?**

2     A.     Yes. The Commission issued Decision No. 56271 on December 15, 1988. That decision  
3           required each utility to file tariffs for the provision of supplementary, standby, and  
4           maintenance power to QFs over 100 kW with the following guidelines:

- 5  
6           •     The tariffs were to include a single basic service charge for the three services.  
7                 The charge would be set at the otherwise applicable rate, reflecting the average  
8                 demand of the QF, with the standby and maintenance power demand being  
9                 weighted by the proportion of time that such services are required.
- 10          •     Supplementary power would be priced at the otherwise applicable retail rate. Any  
11                 demand charge or minimum kW demand included in the rate would be  
12                 determined only for supplementary power, without reference to the QF's other  
13                 power requirements.
- 14          •     Maintenance power would be priced at an energy charge per kWh equal to the  
15                 actual incremental cost of providing such service plus an appropriate adder to  
16                 contribute toward common costs.
- 17          •     Tariffs for standby service would include an energy charge per kWh equal to the  
18                 actual incremental cost of providing such service plus an appropriate adder to  
19                 contribute toward common costs. Demand costs would be recovered through a  
20                 fixed dollars per kW reservation charge, based on the probability that the QF  
21                 would have a forced outage at the time of the utility's system peak.

22  
23     **PRICING PLAN PRS-101**

24     **Q.     Please describe TEP's Pricing Plan PRS-101.**

25     A.     The title of Pricing Plan PRS-101 is "Non-Firm Power Purchase from Renewables,  
26           Cogeneration, and Small Power Production Service." PRS-101 contains fixed seasonal  
27           rates at which TEP would purchase *non-firm* energy from QFs with capacity of 100 kW  
28           or less.

1     **Q.     What has TEP proposed regarding PRS-101?**

2     A.     TEP has proposed changing the title of PRS-101 to "Power Purchase from Renewable  
3           Energy Resources." It would apply to customers with generating capacity of 100 kW or  
4           less that use renewable energy resources. It would no longer apply to QFs that are  
5           cogeneration facilities. The purchase rates would also change from fixed rates to market-  
6           based rates using TEP's Schedule MGC-1. In addition, TEP has added a provision that  
7           would require the customer to conform to all applicable interconnection requirements as  
8           mandated either by government or by TEP. TEP has also proposed that time-of-use bi-  
9           directional metering and time-of-use net metering would not be available. TEP further  
10          proposed changes to the "Net metering method" section. It would be expanded from  
11          being applicable only to solar facilities of 5 kW or less to solar or wind facilities of 10  
12          kW or less. Time-of-use net metering would not be available. There are other minor  
13          word changes in TEP's proposal.

14  
15     **Q.     What is Staff's recommendation regarding PRS-101?**

16     A.     Staff recommends that the applicability of PRS-101 not be changed to exclude  
17           cogeneration facilities. All of the other proposed changes are acceptable.

18  
19     **Q.     Why is Staff recommending that the applicability of PRS-101 not be changed?**

20     A.     As described earlier, Decision No. 52345 required the utilities to file tariffs for purchases  
21           from QFs. In addition, Sec. 292.304(c)(1) of FERC's regulations regarding PURPA  
22           requires utilities to have in effect standard rates for purchases from QFs of 100 kW or  
23           less. Therefore, to remove cogeneration facilities from PRS-101 would be in violation of  
24           both FERC's regulations and the Commission's order.

25     ...

26     ...

27     ...

28     ...

**PRICING PLAN PRS-102**

**Q. Please describe TEP's Pricing Plan PRS-102.**

A. The title of Pricing Plan PRS-102 is "Cogeneration and Small Power Production Service Firm Power Purchase from Qualifying Facilities (QF) with 100 kW or Less Capacity." PRS-102 contains fixed seasonal rates at which TEP would purchase *non-firm* energy from QFs with capacity of 100 kW or less.

**Q. What has TEP proposed regarding PRS-102?**

A. TEP has proposed to eliminate PRS-102.

**Q. What is Staff's recommendation regarding PRS-102?**

A. Staff recommends that PRS-102 not be eliminated. Standard rates for purchases from QFs of 100 kW or less must be in place for the same reasons that cogenerators should not be excluded from PRS-101. To eliminate standard purchase rates for QFs of 100 kW or less would be in violation of both FERC's regulations and the Commission's Decision No. 52345.

Decision No. 52345 requires purchase rates to be based on the utility's avoided costs. If the purchase rates on PRS-102 are no longer aligned with TEP's avoided costs, TEP could file an application with the Commission to revise the rates. Decision No. 52345 allows such adjustments to the purchase rates as often as quarterly to reflect variations in fuel and purchased power costs.

**PRICING PLAN PRS-103**

**Q. Please describe TEP's Pricing Plan PRS-103.**

A. The title of Pricing Plan PRS-103 is "Supplementary, Backup, Maintenance and Interruptible Service for Cogeneration and Small Power Production Qualifying Facilities (QF) under 100 kW." PRS-103 provides for billing for these services to be in accordance

1 with the General Service Time-of-use Rate GS-76, except that the rate would be reduced  
2 by \$0.01 per kWh for interruptible service.

3  
4 **Q. What has TEP proposed regarding PRS-103?**

5 A. TEP has proposed to eliminate PRS-103. Non-residential QFs would be served under  
6 TEP's proposed Pricing Plan PRS-10 Partial Requirements Service Less Than 200 kW.  
7 There would be no tariff to provide partial requirements service for residential QFs.

8  
9 **Q. What is Staff's recommendation regarding PRS-103?**

10 A. Staff recommends that PRS-103 not be eliminated at this time. Renewable energy  
11 applications under 100 kW are often located at residential customers. Also, the rates may  
12 be higher on the proposed PRS-10 than on the current PRS-103. Comparing the rates on  
13 GS-76 with PRS-10 is difficult because one tariff is time-of-use and the other tariff is not.  
14 However, the monthly service charge on GS-76 is \$6.78, while the monthly charge on  
15 PRS-10 is \$124.90. Although no customers are currently being served under PRS-103,  
16 customers may be planning facilities while relying on the fact that PRS-103 is available.  
17 If the rates on PRS-103 are no longer reflective of TEP's costs to provide such services,  
18 TEP should include revised rates in its next general rate case filing.

19  
20 **PRICING PLANS PRS-104, PRS-105, and PRS-106**

21 **Q. Please describe TEP's Pricing Plan PRS-104.**

22 A. The title of Pricing Plan PRS-104 is "Optional Supplementary Service for Cogeneration  
23 and Small Power Production Qualifying Facilities (QF) over 100 kW." PRS-104  
24 provides for billing for supplementary service to be in accordance with the General  
25 Service Time-of-use Rate GS-76, Large General Service Time-of-Use Rate GS-85A, or  
26 Large Light and Power Time-of-Use Rate LLP-90A. Supplementary service is for  
27 electricity purchased from TEP that is in addition to what the QF produces.

28 ...

1     **Q.     Please describe TEP's Pricing Plan PRS-105.**

2     A.     The title of Pricing Plan PRS-105 is "Optional Maintenance Service for Cogeneration and  
3           Small Power Production Qualifying Facilities (QF) over 100 kW." PRS-105 contains a  
4           monthly service charge and a fixed energy charge for energy purchased from TEP when a  
5           QF is out service for scheduled maintenance.

6  
7     **Q.     Please describe TEP's Pricing Plan PRS-106.**

8     A.     The title of Pricing Plan PRS-106 is "Optional Backup Service for Cogeneration and  
9           Small Power Production Qualifying Facilities (QF) over 100 kW." PRS-106 contains a  
10          monthly service charge except that customers also taking service on PRS-105 would only  
11          pay the service charge once. For energy purchased from TEP during an unscheduled  
12          outage of the QF, there is a fixed energy charge. There is also a reservation charge based  
13          on the facility's unscheduled outage rate.

14  
15    **Q.     What has TEP proposed regarding PRS-104, PRS-105, and PRS-106?**

16    A.     TEP has proposed to eliminate these three tariffs. Partial requirements customers would  
17          be served under the proposed PRS-10, PRS-13, or PRS-14, depending on the customer's  
18          size.

19  
20    **Q.     What is Staff's recommendation regarding PRS-104, PRS-105, and PRS-106?**

21    A.     Staff recommends that these tariffs not be eliminated at this time. These tariffs were  
22          designed in accordance with Decision No. 56271. The rates may be higher on the  
23          proposed tariffs than on the current tariffs. Even though only one customer is currently  
24          being served on these tariffs, there may be other customers planning facilities while  
25          relying on the fact that these tariffs are available. If the rates on these tariffs are no  
26          longer reflective of TEP's costs to provide such services, TEP should include revised  
27          rates in its next general rate case filing.

28    ...

**PRICING PLANS PRS-107 and PRS-108**

**Q. Please describe TEP's Pricing Plan PRS-107.**

A. The title of Pricing Plan PRS-107 is "Optional Backup Service for Self-Generation Facilities over 3 MW." Facilities do not have to be designated as QFs to qualify for service under this tariff. The rates to purchase electricity from TEP during an unscheduled outage of the facility consist of a reservation charge and a fixed energy charge.

**Q. Please describe TEP's Pricing Plan PRS-108.**

A. The title of Pricing Plan PRS-108 is "Optional Maintenance Energy Service for Self-Generation Facilities over 3 MW." Facilities do not have to be designated as QFs to qualify for service under this tariff. The rate to purchase energy from TEP during a scheduled outage of the facility consists of a fixed energy charge. The energy charge is lower if the customer also takes service under PRS-107.

**Q. What has TEP proposed regarding PRS-107 and PRS-108?**

A. TEP has proposed to eliminate both tariffs. Self-generation facilities over 3 MW would be served under the proposed PRS-14.

**Q. What is Staff's recommendation regarding PRS-107 and PRS-108?**

A. Staff recommends that these tariffs not be eliminated at this time. The rates may be higher on the proposed tariff than on the current tariffs. Even though no customers are currently being served on these tariffs, there may be customers planning facilities while relying on the fact that these tariffs are available. If no customers have requested service on these tariffs by the time of TEP's next general rate case, the tariffs could be considered for elimination if other applicable tariffs are available.

...

...



**PRICING PLAN PRS-10**

**Q. Please describe TEP's Pricing Plan PRS-10.**

A. TEP has proposed the introduction of Pricing Plan PRS-10, titled "Partial Requirements Service Less Than 200 kW." The tariff would be available to any non-residential customer with an aggregate partial requirements load of less than 200 kW. The facility would not have to be a QF.

The rates on PRS-10 consist of fixed delivery charges and market-based generation charges using Schedule MGC-2 plus a 10 percent procurement charge. The delivery charges include a monthly customer charge of \$124.90 for backup/standby service, a standby demand charge of \$8.34 per kW, a backup energy charge of \$0.032612 per kWh in the summer, a backup energy charge of \$0.024602 per kWh in the winter, a supplemental demand charge of \$4.17 per kW, a supplemental energy charge of \$0.068778 per kWh in the summer, and a supplemental energy charge of \$0.051885 per kWh in the winter. Backup/standby service is defined in the tariff as service during both planned and unplanned generator outages.

**Q. What is Staff's recommendation regarding PRS-10?**

A. Staff recommends that PRS-10 be approved with modifications. There is a need for a partial requirements tariff for customers under 200 kW that are not QFs. However, Staff is concerned that the rates on the tariff may be too high and thus discourage the development of these applications. Decision No. 52345 intended to encourage the development of cogeneration and small power production. Staff recommends that TEP revise the delivery rates downward by considering savings to TEP of having self-generation facilities in its service territory, such as reduced need for additional transmission capacity. In addition, Decision No. 56271 requires that supplementary power be priced at the otherwise applicable retail rate. The rates for supplementary power on PRS-10 are not equal to the otherwise applicable rates. The rates on PRS-10

1 for supplemental service should be adjusted so that a customer would not pay more on  
2 PRS-10 than on the otherwise applicable tariff.

3  
4 **PRICING PLAN PRS-13**

5 **Q. Please describe TEP's Pricing Plan PRS-13.**

6 A. TEP has proposed the introduction of Pricing Plan PRS-13, titled "Partial Requirements  
7 Service From 200 kW to Less Than 3,000 kW." The tariff would be available to any  
8 non-residential customer with an aggregate partial requirements load from 200 kW to  
9 Less than 3,000 kW. The facility would not have to be a QF.

10  
11 The rates on PRS-13 consist of fixed delivery charges and market-based generation  
12 charges using Schedule MGC-2 plus a 10 percent procurement charge. The delivery  
13 charges include a monthly customer charge of \$1,675.88 for backup/standby service that  
14 includes 200 kW, a standby demand charge of \$4.47 per kW for all additional kW, a  
15 backup energy charge of \$0.010458 per kWh in the summer, a backup energy charge of  
16 \$0.008557 per kWh in the winter, a supplemental demand charge of \$1.97 per kW, a  
17 supplemental energy charge of \$0.052290 per kWh in the summer, and a supplemental  
18 energy charge of \$0.042783 per kWh in the winter. Backup/standby service is defined in  
19 the tariff as service during both planned and unplanned customer-owned generator  
20 outages.

21  
22 **Q. What is Staff's recommendation regarding PRS-13?**

23 A. Staff recommends that PRS-13 be approved with modifications. There is a need for a  
24 partial requirements tariff for customers from 200 kW to Less Than 3,000 kW that are not  
25 QFs. However, Staff is concerned that the rates on the tariff may be too high and thus  
26 discourage the development of these applications. Decision No. 52345 intended to  
27 encourage the development of cogeneration and small power production. Staff  
28 recommends that TEP revise the delivery rates downward by considering savings to TEP

1 of having self-generation facilities in its service territory, such as reduced need for  
2 additional transmission capacity. In addition, Decision No. 56271 requires that  
3 supplementary power be priced at the otherwise applicable retail rate. The rates on PRS-  
4 13 for supplemental service should be adjusted so that a customer would not pay more on  
5 PRS-13 than on the otherwise applicable tariff.

6  
7 **PRICING PLAN PRS-14**

8 **Q. Please describe TEP's Pricing Plan PRS-14.**

9 A. TEP has proposed the introduction of Pricing Plan PRS-14, titled "Partial Requirements  
10 Service 3,000 kW and Greater." The tariff would be available to any non-residential  
11 customer with an aggregate partial requirements load of 3,000 kW and greater. The  
12 facility would not have to be a QF.

13  
14 The rates on PRS-14 consist of fixed delivery charges and market-based generation  
15 charges using Schedule MGC-2 plus a 10 percent procurement charge. The delivery  
16 charges include a standby demand charge of \$4.48 per kW, a backup energy charge of  
17 \$0.004761 per kWh in the summer, a backup energy charge of \$0.003896 per kWh in the  
18 winter, a supplemental demand charge of \$2.00 per kW, a supplemental energy charge of  
19 \$0.031743 per kWh in the summer, and a supplemental energy charge of \$0.025972 per  
20 kWh in the winter. Backup/standby service is defined in the tariff as service during both  
21 planned and unplanned generator outages.

22  
23 **Q. What is Staff's recommendation regarding PRS-14?**

24 A. Staff recommends that PRS-14 be approved with modifications. Staff is concerned that  
25 the rates on the tariff may be too high and thus discourage the development of these  
26 applications. Decision No. 52345 intended to encourage the development of  
27 cogeneration and small power production. Staff recommends that TEP revise the  
28 delivery rates downward by considering savings to TEP of having self-generation

1 facilities in its service territory, such as reduced need for additional transmission  
2 capacity. In addition, Decision No. 56271 requires that supplementary power be priced at  
3 the otherwise applicable retail rate. The rates on PRS-14 for supplemental service should  
4 be adjusted so that a customer would not pay more on PRS-14 than on the otherwise  
5 applicable tariff.

6  
7 **SCHEDULE MGC-1**

8 **Q. Please describe TEP's Schedule MGC-1**

9 A. Schedule MGC-1 is titled "Tucson Electric Power Company Market Generation Credit  
10 (MGC) Calculation." MGC-1 was established by the 1999 TEP Settlement Agreement  
11 (Decision No. 62103) to be used in the calculation of the variable component of TEP's  
12 stranded cost recovery.

13  
14 **Q. What has TEP proposed regarding MGC-1?**

15 A. TEP has proposed the following changes to the MGC-1:

- 16 • Replace references to the "Palo Verde NYMEX futures price" with the "Platts  
17 Long-Term Forward Assessment for the Palo Verde Forward price."  
18 • Replace references to the "California Power Exchange" with "Dow Jones Palo  
19 Verde Index."  
20 • Change the determination of the market price from 45 days prior to each calendar  
21 quarter to 30 days prior to each calendar month.  
22 • Remove the word "hourly" from the calculation of the off-peak MGC.  
23 • Make other clarifying wording changes.

24  
25 **Q. What is Staff's recommendation regarding MGC-1?**

26 A. Staff recommends that the proposed changes be made. The Palo Verde NYMEX futures  
27 price and the California Power Exchange no longer exist. The Platts and Dow Jones  
28 indices are the only ones currently available for this area. The word "hourly" should be

1 removed because the Dow Jones Index provides daily figures instead of hourly.  
2 Although TEP removed the word "hourly" from some locations in the MGC-1, it appears  
3 that a few were missed. To be consistent, the word "hourly" should be removed from the  
4 10th line of the second paragraph on page 1, from the definition for "MGC<sub>OFF</sub>" on page 4,  
5 and from the definition of "WEIGHT" on page 5.  
6

7 **SCHEDULE MGC-2**

8 **Q. Please describe TEP's Schedule MGC-2.**

9 A. The title of MGC-2 is "Market Generation Credit (MGC) Calculation For Partial  
10 Requirements Services." The purpose of the MGC-2 is to establish the generation price  
11 at which customers would purchase electricity for backup/standby and supplemental  
12 energy under TEP's proposed PRS-10, PRS-13, and PRS-14. The MGC-2 is based on the  
13 MGC-1 with the following differences:

- 14 • The determination of the market price is made 15 days prior to each calendar  
15 month instead of 30 days.
- 16 • The on-peak and off-peak MGCs are not combined to form an average MGC.
- 17 • The MGC is not adjusted for variable must-run.  
18

19 **Q. What is Staff's recommendation regarding MGC-2?**

20 A. Staff recommends that MGC-2 be approved. Also, the word "hourly" should be removed  
21 from the 10th line of the second paragraph on page 1 and from the definition of  
22 "WEIGHT" on page 5.  
23

24 **Q. Does this conclude your testimony?**

25 A. Yes.  
26  
27  
28

## **RESUME**

**BARBARA KEENE**

### **Education**

B.S. Political Science, Arizona State University (1976)  
M.P.A. Public Administration, Arizona State University (1982)  
A.A. Economics, Glendale Community College (1993)

### **Additional Training**

Management Development Program - State of Arizona, 1986-1987  
UPLAN Training - LCG Consulting, 1989, 1990, 1991  
various seminars, workshops, and conferences on energy efficiency, rate design, computer skills, labor market information, training trainers, and Census products

### **Employment History**

**Arizona Corporation Commission, Utilities Division, Phoenix, Arizona: Public Utilities Analyst V (October 2001-present), Senior Economist (July 1990-October 2001), Economist II (December 1989-July 1990), Economist I (August 1989-December 1989).** Conduct economic and policy analyses of public utilities. Coordinate working groups of stakeholders on various issues. Prepare Staff recommendations and present testimony on electric resource planning, rate design, special contracts, energy efficiency programs, and other matters. Responsible for maintaining and operating UPLAN, a computer model of electricity supply and production costs.

**Arizona Department of Economic Security, Research Administration, Economic Analysis Unit: Labor Market Information Supervisor (September 1985-August 1989), Research and Statistical Analyst (September 1984-September 1985), Administrative Assistant (September 1983-September 1984).** Supervised professional staff engaged in economic research and analysis. Responsible for occupational employment forecasts, wage surveys, economic development studies, and over 50 publications. Edited the monthly **Arizona Labor Market Information Newsletter**, which was distributed to about 4,000 companies and individuals.

### **Testimony**

Resource Planning for Electric Utilities (Docket No. U-0000-90-088), Arizona Corporation Commission, 1990; testimony on production costs and system reliability.

Trico Electric Cooperative Rate Case (Docket No. U-1461-91-254), Arizona Corporation Commission, 1992; testimony on demand-side management and time-of-use and interruptible power rates.

Navopache Electric Cooperative Rate Case (Docket No. U-1787-91-280), Arizona Corporation Commission, 1992; testimony on demand-side management and economic development rates.

Arizona Electric Power Cooperative Rate Case (Docket No. U-1773-92-214), Arizona Corporation Commission, 1993; testimony on demand-side management, interruptible power, and rate design.

Tucson Electric Power Company Rate Case (Docket Nos. U-1933-93-006 and U-1933-93-066) Arizona Corporation Commission, 1993; testimony on demand-side management and a cogeneration agreement.

Resource Planning for Electric Utilities (Docket No. U-0000-93-052), Arizona Corporation Commission, 1993; testimony on production costs, system reliability, and demand-side management.

Duncan Valley Electric Cooperative Rate Case (Docket No. E-01703A-98-0431), Arizona Corporation Commission, 1999; testimony on demand-side management and renewable energy.

Tucson Electric Power Company vs. Cyprus Sierrita Corporation, Inc. (Docket No. E-0000I-99-0243), Arizona Corporation Commission, 1999; testimony on analysis of special contracts.

Arizona Public Service Company's Request for Variance (Docket No. E-01345A-01-0822), Arizona Corporation Commission, 2002; testimony on competitive bidding.

Generic Proceedings Concerning Electric Restructuring Issues (Docket No. E-00000A-02-0051), Arizona Corporation Commission, 2002; testimony on affiliate relationships and codes of conduct.

### **Publications**

Author of the following articles published in the *Arizona Labor Market Information Newsletter*:

- "1982 Mining Employees - Where are They Now?" - September 1984
- "The Cost of Hiring" and "Arizona's Growing Industries" - January 1985
- "Union Membership - Declining or Shifting?" - December 1985
- "Growing Industries in Arizona" - April 1986
- "Women's Work?" - July 1986
- "1987 SIC Revision" - December 1986

"Growing and Declining Industries" - June 1987  
"1986 DOT Supplement" and "Consumer Expenditure Survey" - July 1987  
"The Consumer Price Index: Changing With the Times" - August 1987  
"Average Annual Pay" - November 1987  
"Annual Pay in Metropolitan Areas" - January 1988  
"The Growing Temporary Help Industry" - February 1988  
"Update on the Consumer Expenditure Survey" - April 1988  
"Employee Leasing" - August 1988  
"Metropolitan Counties Benefit from State's Growing Industries" - November 1988  
"Arizona Network Gives Small Firms Helping Hand" - June 1989

Major contributor to the following books published by the Arizona Department of Economic Security:

*Annual Planning Information* - editions from 1984 to 1989  
*Hispanics in Transition* - 1987

(with David Berry) "Contracting for Power," *Business Economics*, October 1995.

(with Robert Gray) "Customer Selection Issues," *NRRI Quarterly Bulletin*, Spring 1998.

### Reports

(with Task Force) *Report of the Task Force on the Feasibility of Implementing Sliding Scale Hookup Fees*. Arizona Corporation Commission, 1992.

*Customer Repayment of Utility DSM Costs*, Arizona Corporation Commission, 1995.

(with Working Group) *Report of the Participants in Workshops on Customer Selection Issues*," Arizona Corporation Commission, 1997.